

Goal J3: Ensure Environmental Stewardship

- Wetland Banking
- Stream Mitigation Efforts
- Relationship Building
 - Division of Forestry
 - Kentucky Department of Fish and Wildlife Resources
 - Federal Highway Administration
 - Section 106 Programmatic Agreement
 - United States Fish and Wildlife Service
- Under Construction

Wetland Banking

Background

The Kentucky Transportation Cabinet has continued banking wetlands and continually exceeding the 1.4:1 return ratio. Wetland banking is a process where we mitigate wetland impacts at one site, well before impacts are incurred or even known. By taking this proactive approach KYTC can “bank” wetland mitigation, just as one would deposit money into a checking account, and debit from the account as needed.

Purpose

This measure provides an indicator of acreage banked.

Method

Information is collected throughout the year and reported to federal agencies and other stakeholders. Information consists of the amount of acreage, the location or site for the wetland initiative, and any other identifying details.

Improvements/Results

- The Licking River Wetland Mitigation Bank Site was acquired by KYTC in summer of 2003.
- KYTC submitted a request to US ACE for approval to acquire for the purposes of wetland mitigation banking, a site at mouth of Green River in anticipation of I-69 and other highway projects.
- For the calendar period of 2002 until present, KYTC has debited or debits from mitigation banks pending approval from the US ACE that total 14.36 acres for 8 projects:

<u>KYTC Highway Project</u>	<u>Wetland Loss by KYTC Projects (acres)</u>	<u>Wetland Mitigation Requirement (acres)</u>	<u>Wetland Mitigation Ratio (Impacts:Mitigation) (acres)</u>	<u>KYTC Wetland Mitigation Bank Site Used</u>
<u>02-101.00 Henderson, US60</u>	<u>1.08</u>	<u>3.30</u>	<u>3.05 : 1.00</u>	<u>Lambert Tract</u>
<u>04-0121.00 Larue, KY 210</u>	<u>1.25</u>	<u>2.50</u>	<u>2.00 : 1.00</u>	<u>Nelson County</u>
<u>05-0387.00 Jefferson, Stonestreet</u>	<u>0.10</u>	<u>0.25</u>	<u>2.50 : 1.00</u>	<u>Nelson County</u>
<u>06-0333.02 Gallatin, I-71 to KY 42</u>	<u>0.35</u>	<u>1.05</u>	<u>3.00 : 1.00</u>	<u>Lincoln County</u>
<u>10-1061.00 Magoffin, US 460 Bridge</u>	<u>0.40</u>	<u>2.00</u>	<u>5.00 : 1.00</u>	<u>Licking River</u>
<u>11-0254.00 Harlan, US 421</u>	<u>1.78</u>	<u>4.00</u>	<u>2.25 : 1.00</u>	<u>Meadow Creek</u>
<u>11-1056.00 Laurel, Bridge Muddygut</u>	<u>0.13</u>	<u>0.26</u>	<u>2.00 : 1.00</u>	<u>Meadow Creek</u>
<u>12-0308.00 Pike, US 119</u>	<u>0.33</u>	<u>1.00</u>	<u>3.00 : 1.00</u>	<u>South Shore</u>
<u>TOTAL =</u>	<u>5.42</u>	<u>14.36</u>	<u>~2.65 : 1.00 per project</u>	<u>6 bank sites used</u>
<u>Average =</u>	<u>0.678 (for projects involving wetlands)</u>	<u>1.795 (for projects involving wetlands)</u>	<u>2.85 : 1.00</u>	<u>N/A</u>

- The benefits of KYTC wetland mitigation bank sites for the above projects are summarized below:

<u>Issue</u>	<u>Processing Highway Projects With KYTC Wetland Mitigation Bank Sites</u>	<u>Processing Highway Projects Without KYTC Wetland Mitigation Bank Sites</u>
<u>Estimated Costs</u>	<u>\$88,692.39</u>	<u>\$ 287,200.00 to \$718,000.00</u>
<u>Time</u>	<u>6-9 months permit review</u>	<u>2-3 years</u>
<u>Staff</u>	<u>2 permit coordinators</u>	<u>8+ for each project (2 r/w agents, 1 biologist, 2 survey staff, 2 permit coordinators, 1 engineer)</u>
<u>Regulatory Review</u>	<u>No additional site review: no unexpected delays</u>	<u>4-5 regulatory agency staff for a site review per project</u>

Stream Mitigation Efforts

KYTC is exploring ways to “bank” stream mitigation for needs projected in the six-year plan in an effort to prevent delays in highway delivery, lower stream mitigation costs, and increase predictability of highway schedules.

In 2003, KYTC initiated a Stream Stabilization Program to kick off the stream mitigation banking effort. We distributed 1,400 leaflets describing the program to the public through the US Dept. of Agriculture Natural Resources Conservation Service. The response has been very good. As a result KYTC is working with a number of landowners in an attempt to secure easements that will allow us to restore degraded streams, reduce erosion, and garner stream mitigation benefits while giving the landowners protection against loss of land and reduced water quality.

Currently, KYTC is negotiating with landowners and partners, or developing plans to establish easement boundaries for stream mitigation on:

- Approx. 5,000 feet of Trammel Creek, Allen County, Green River Basin
- Approx. 5,000 feet of Salt Lick Creek, Bath County, Licking River Basin
- Approx. 4,000 feet of Crooked Creek, Grant County, Licking River Basin
- Approx. 1,000 feet of Kinniconick Creek, Lewis County, Huntington Corps District
- Approx. 1,000 feet of Green River, Casey County, Green River Basin
- Several thousand feet of Yellow Creek and tribs in city of Middlesboro
- Approx. 1,200 feet of Massac Creek, McCracken County, Clark and Ohio Rivers

In addition to the outreach with the public, KYTC has several thousand feet of stream mitigation that can be accessed on our wetland mitigation bank sites.

Currently, KYTC can pay a fee in-lieu of mitigation to approved vendors such as KDFWR or Northern Kentucky University. This is a process whereby KYTC pays a set fee into account of the vendor. The in-lieu fee vendor then takes on the responsibility for the stream mitigation part of a project such as finding, designing, constructing, and monitoring a stream restoration project. The expenditure of the in-lieu fees collected is governed by a board of regulatory agencies called the Mitigation Review Team. Currently, the cost of in-lieu fees is set at a \$100 per foot baseline.

Relationship Building

Division of Forestry

The KYTC has entered into two collection agreements with the U.S. Forest Service (USFS) to establish a cooperative partnership for the protection, management, and improvement of the National Forest System. Agreements have been executed for both the Daniel Boone National Forest and the Land Between the Lakes National Recreation Area. Recognizing that meaningful consultation and input by the USFS on highway projects that impact or utilize their designated lands imposes a burden on the agency, a means for recovering the associated costs of these efforts has been established. Such consultation routinely requires undertaking or review of biological assessments for proposed, sensitive, threatened or endangered species, archaeological evaluations, or study of other environmental aspects of the proposed project.

The collection agreements provide a framework for input by the USFS to ensure compliance with the applicable Forest Service Management Plans and the National Environmental Policy Act (NEPA). It allows the USFS to recover the cost of processing and administering NEPA analysis and implementation of agreed-upon mitigation measures for forest resources impacted by a highway project. The agreements also benefit the KYTC by providing an avenue for timely input from the USFS and establishing guidelines for a cooperative working relationship for its projects. This cooperation in turn benefits the local communities and highway travelers by providing a safer, improved, environmentally sensitive, and modern transportation system.

Kentucky Department of Fish and Wildlife Resources

The KYTC has entered into an agreement with the Kentucky Department of Fish and Wildlife Resources (KDFWR) that will give KYTC the option to transfer mitigation properties to KDFWR while keeping our use of the mitigation credits for the delivery of highway projects. In doing so, KYTC is meeting the goals of the US Army Corps of Engineers and will give KDFWR the opportunity to protect and maintain the wetland and stream resources in perpetuity. The first such site transferred under this agreement is the South Shore Wetland Mitigation Site. The South Shore Wetland Mitigation Site is a 90-acre tract of land located in Greenup County, Kentucky along the Ohio River. The KYTC created 28.20 acres of wetland habitat for the mitigation of wetland impacts associated with highway construction in northeastern Kentucky. A total of 28.20 wetland credits were established for the mitigation site. Currently four KYTC projects have debited a total of 6.23 credits from the South Shore Wetland Mitigation Site. The remaining balance of 20.47 credits will be used for future KYTC projects.

The mitigation property has been monitored for three years to insure that our goals to establish wetland habitat have been met. Once success was established, the site was transferred to the KDFWR. Obtaining the South Shore Wetland Mitigation benefits KDFWR by enabling the agency to meet its long-term goals of developing management areas along the Ohio River. KYTC benefits by satisfying its mitigation requirements of long-term protection of the site, while retaining unused mitigation credits for future transportation projects. KYTC and KDFWR view the wetland mitigation sites as a benefit to both the efficient delivery of highway projects and as a contribution to the preservation, protection and enhancement of aquatic and wildlife resources and wetland habitat. Both parties agree that this cooperative partnership benefits not only the resources, but also ultimately benefits the citizens of the Commonwealth.

Federal Highway Administration -- Guidance and Accountability

The Kentucky Transportation Cabinet (KYTC) and Federal Highway Administration – Kentucky Division (FHWA) have designed and implemented Guidance and Accountability Forms (GAF) to be used during the development of base studies prepared for projects being evaluated under either an Environmental Assessment (EA) or Environmental Impact Statement (EIS). The forms are a result of a coordinated effort between the agencies to improve the quality and consistency of the environmental reports. Contributors to the development of the GAF were staff members from KYTC – Office of Quality, KYTC – Division of Environmental Analysis (DEA), and the agency's Chief Environmental Program Administrator, as well as members of the FHWA technical staff.

GAF's have been developed for nine study areas: Air Quality, Cultural/Historic, Archaeology, Aquatic Studies, Terrestrial Studies, Biological Assessment, Noise, Socioeconomic, and UST/Hazardous Materials. The purpose of the forms is to clearly document the expectations of the KYTC and FHWA with regard to the content of these reports. The forms are designed for signature and submittal by the prime consultant for the project as a means of emphasizing the responsibility of the prime in the management of the environmental aspects of the project. Furthermore, the return of the forms to the consultant at stages of document review and upon acceptance provides a means of feedback from the KYTC. The forms also provide a less subjective means of evaluating consultant performance than had previously existed. This tool will be used in the future to feed into the contract procurement process to assure that poor performance is not being rewarded with additional contracts.

The forms consist of a checklist of items that must be addressed in the subject report. The forms also require the identification of any commitments for future activities or investigation, any mitigation that may be required, and any other special issues that should be brought to the attention of the Project Team as the project is advanced. During report review, KYTC staff indicates their agreement or disagreement as to whether the report has adequately addressed each line item of the form. The form is returned to the prime consultant along with a letter identifying, with specificity, any deficiencies that have been identified.

Once a report is accepted by KYTC-DEA reviewers, the GAF and report are sent to the District Environmental Coordinator and the District Project Manager for their signatures. This is meant to assure that the Project Team is aware of any significant issues identified by the study and summarized in the GAF. Upon acceptance by the Project Manager, the form is returned to the prime consultant with instructions that with the acceptance of the report, its contents should be incorporated into the EA or EIS. Upon acceptance of an EA or EIS by the KYTC, the forms are transmitted with the document to FHWA to demonstrate that the base studies, that are the backbone of the document, have been prepared and reviewed for proper content and that all relevant issues have been considered. These latter measures have all been taken to assure better communication of project issues and commitments and to facilitate improved follow-through on such issues.

A second form has also been developed to be used in conjunction with the GAF. A Supplier Corrective Action Record (SCAR) is generated when reports are determined to be non-compliant with the requirements outlined in the GAF. The SCAR is sent to the prime consultant and requests their explanation of why the inadequate or incomplete report was delivered for approval by KYTC. The SCAR also requires identification of specific measures that, once taken, will prevent a similar problem from reoccurring in future documents.

GAF's are currently being developed for EA, FONSI, and EIS documents. Early indications are that the documentation of FHWA and KYTC expectations has resulted in more thorough and

complete reports. This reduces the time required for review and document revisions and better streamlines the environmental process. Copies of the GAF are available on the KYTC – Division of Environmental Analysis web site at www.kytc.state.ky.us/EnvAnalysis.

Section 106 Programmatic Agreement

In an effort to better streamline its environmental processes, the Kentucky Transportation Cabinet (KYTC) has entered into a Programmatic Agreement with the Federal Highway Administration – Kentucky Division (FHWA), the Kentucky State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP). The agreement specifies the responsibility of each party in the application of Section 106 of the National Historic Preservation Act. Through the agreement, FHWA has delegated many of the routine responsibilities of the regulation to the KYTC. KYTC, acting on behalf of FHWA, now administers most of this aspect of the transportation delivery process.

The agreement outlines three aspects of the process in which FHWA will continue to play the lead role:

1. Native American consultation will be prepared by KYTC but shall be under the signature of FHWA to maintain the nation-to-nation relationship with the tribes;
2. Should a dispute arise between KYTC and SHPO, particularly with regard to eligibility or adverse effect determinations, FHWA shall involve itself, as necessary, in the resolution of the dispute; and
3. FHWA is responsible for filing Memorandum of Agreement (MOA) documents or Memorandum of Understanding (MOU) documents (as appropriate) with the ACHP or other federal agencies.

FHWA will remain involved in the Section 106 process through receipt of copies of all related correspondence and may interject if project specific circumstances dictate such need. Otherwise, KYTC is responsible for working directly with SHPO for review and approval of consulting parties, defining the Area of Potential Effect, determinations of eligibility and effect, and notification of the ACHP of adverse effects. FHWA shall be involved in the development of MOA's necessary to address adverse effects.

The Programmatic Agreement also addresses a method for phasing archaeological investigations when deemed appropriate. Through the agreement, KYTC commits to the completion of Phase I (pedestrian survey) investigation of high probability areas for all viable alternatives during Environmental Assessment or Draft Environmental Impact Statement development. High probability areas are defined, as landforms where archaeological sites, if present, will most likely be located. Definition and location of these areas is subject to the approval of KYTC and SHPO. A complete Phase I survey of the preferred alternate and any Phase II investigations (trenching, test pits, etc.) is to be completed prior to development of a Finding of No Significant Impact (FONSI) or Final Environmental Impact Statement (FEIS). The document provides flexibility for deferring these more intrusive investigations to latter stages of the project if property owners do not consent to the work or other factors prescribe such measures.

This agreement should significantly reduce the time and effort required of FHWA and KYTC staff to navigate the Section 106 process. A copy of the agreement can be accessed through the KYTC Division of Environmental Analysis web site at www.kytc.state.ky.us/EnvAnalysis.

United States Fish and Wildlife Service

What can a highway department do with woody trees that invade into the highway clear zone? If you are the Kentucky Transportation Cabinet (KYTC), you work with your resource agencies to find a win-win solution for your problem. Under a recently signed Memorandum of Agreement (MOA) with the United States Fish and Wildlife Service (USFWS), the USFWS harvests eastern red cedar trees, Juniperus virginiana, from KYTC right-of-way for use in bioengineering streambank stabilization projects in their Partners for Fish and Wildlife Program. This voluntary program provides technical and financial assistance to private landowners, utilizing a combination of public, private, and partnership resources to accomplish habitat restoration. In this case, stream restoration and stream bank stabilization is accomplished through bioengineering techniques using natural vegetative materials.

The eastern red cedar tree is one of the most viable naturally occurring bioengineering resources that is available in sufficient quantities to be of value for use in streambank stabilization and the control of erosion on streambanks. The MOA will benefit both agencies. The USFWS will work in partnership with other federal, state, and local government entities, non-governmental organizations, and private citizens to harvest the eastern red cedar trees from KYTC-approved right-of-way, for use in bioengineering streambank stabilization projects. This supply of natural material will assist the USFWS in its Partners for Fish and Wildlife Program. The environment will benefit, as the control of the loss of soil from streambanks will improve the quality of the water in Kentucky's streams, which will enhance the livelihood of productive fish populations, and will also reduce erosion and sedimentation.

Under this agreement, the eastern red cedar trees that are removed from the highway clear zone can be beneficially used as a valuable bioengineering resource for stream bank stabilization. This is considered by both agencies as a far better outcome than converting them to wood chips or burning them as debris as had been typically done in the past. Therefore, the MOA provides stewardship opportunities not only for the environment, but also for roadside vegetation management and roadside safety.

Under Construction

The following reportable areas are currently under construction and will be reported in the next edition of *The Path*:

- Reporting on the status of establishing a system to compare crash rates of context sensitive solution projects to comparable non-context sensitive solution projects
- Reporting the average amount of time it takes to complete an Environmental Impact Study (EIS)
- Reporting the average amount of time it takes to complete an Environmental Assessment (EA)
- Reporting the status of implementing an environmental document tracking system

Exemplary Environmental Project

Newtown Pike Extension project (1997 – current) is our environmental exemplary project for 2003. This project won the first annual James C. Codell III Environmental Stewardship Award. This project is in a residential urban area. As a result of this project a neighborhood is being redeveloped and quality of life of the nearby residents is being improved. Sidewalks and land and streetscaping are tying neighborhoods together. Areas will have gateway treatment at intersections, which include way-finding signage and attractive lighting and sidewalk designs. Bus service will be provided along the new route with bus pull-offs and attractive shelters and benches. The lane width will be reduced to less than 12 feet to encourage slower speeds and quicker and safer pedestrian crossings. The area is currently in a low-income area of economically deprived residents. According to the residents, this project will create a sense of pride for them.